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Ref: OWP

Ms. Teresa Pratt
Project Assessment Manager
British Columbia Office of Environmental Assessment
2nd Floor- 441 Columbia Street
Kamloops, British Columbia V2C 2T3

Re: Crown Mountain Coal Mine Project

Dear Ms. Pratt:

We appreciate the British Columbia Office of Environmental Assessment's invitation for the United States Environmental Protection Agency to provide input on the *Draft Application Information Requirements (DAIR)– Crown Mountain Coking Coal Project* dated June 2017 (DAIR). The DAIR describes the information that would be included in the British Columbia (B.C.) Environmental Assessment Office Project Application and Environmental Assessment. The Elk River flows into transboundary Lake Koocanusa and the Kootenai River in the United States (U.S.).

Please find the EPA's comments regarding the DAIR below. Our comments request that additional information related to water quality, aquatic health and consultation be included in the Project Application and Environmental Assessment to assess the potential for impacts to transboundary waters. Our primary focus is on the discharges of selenium, nitrates and other contaminants from the proposed Crown Mountain mine particularly when combined with other discharges into the Elk River from the five operating coal mines and other potential new or expanded coal mines.

Comments:

Water Quality & Aquatic Health

- The DAIR (Section 2.2. 5th bullet) indicates that the Application will evaluate potential effects on the transboundary environment. However, it is not clear how that will occur because the aquatic regional study area ends at the U.S./Canada border. The EPA recommends that the DAIR include an assessment of downstream impacts in the U.S. portions of the watershed to surface water, aquatic health and other aquatic "Valued Components" such as fish and water bird species, including but not limited to, Lake Koocanusa and the Kootenai River.

- The State of Montana and B.C. have established the Lake Koocanusa Monitoring and Research Working Group (LKMRWG). The objective of the group is to "collaborate for the purpose of protecting the uses of Lake Koocanusa by determining water monitoring priorities, developing

science-based water quality research plans/studies and developing water quality criteria/objectives for Montana and B.C." The LKMRWG has been tasked with developing site-specific water quality criteria and objectives that will be protective of Lake Koocanusa. The Application should describe how the proponent will comply with any potential site-specific objectives applicable in B.C. developed by the group, potentially including a selenium water column target that, while yet undetermined, may be less than 2 µg/L in the reservoir.

- We recommend that the Application discuss whether the mine proponent will participate in the LKMRWG. Currently, Teck Coal participates as a member of the Monitoring and Research Committee (MRC).

- As noted in sections 4.1.4.1.3 and .4 of the DAIR, the Application will demonstrate how the project will meet B.C.'s water quality guidelines (i.e., 2 µg/L for Se for protection of aquatic life) and will meet the Elk Valley Water Quality Plan, including water quality targets at the downstream order stations. We recommend that the Application describe the systems and technologies that will be used to meet water quality targets.
    - In particular, we note the absence of discussion regarding active treatment to reduce selenium and nitrogen loadings from seepage from the waste rock pile. The application should discuss the logistics and technical feasibility of collecting, pumping, and treating contaminated seepage and runoff. For example, would there need to be a water treatment plant located downstream of the waste rock impoundment in West Alexander Creek?
    - Will the project proponent need to achieve the water quality targets immediately or will there be a compliance schedule such as for the Teck Coal mines?
    - Where will the water quality targets apply? Do the water quality targets apply in the smaller streams located around the proposed mine such as Grave and Alexander Creeks?
    - The Application should also describe the process for implementing revised site-specific water quality criteria which may change during the application process or later during mining operations.

- It is not clear from the DAIR how water quality in the Elk River Valley and Lake Koocanusa will be assessed and protected from the cumulative effects of multiple existing and proposed mines. In U.S. Clean Water Act statutory and regulatory[1] terms, we would anticipate development of the equivalent of a "waste load allocation" and "total maximum daily load" calculation dividing the loadings for pollutants of concern (e.g., selenium, nitrate and cadmium) between the different mines and natural conditions. We recommend that the Application summarize the specific processes and information that will be used to develop discharge limits or targets in water discharge permits including allocations of pollution loadings in order to comply with downstream water quality requirements.

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[1] "Waste load allocation (WLA)" means "The portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality-based effluent limitation." 40 C.F.R. § 130.3(h). "Total maximum daily load (TMDL)" means "The sum of the individual WLAs for point sources and [load allocations (LAs)] for nonpoint sources and natural background. If a receiving water has only one point source discharger, the TMDL is the sum of that point source WLA plus the LAs for any nonpoint sources of pollution and natural background sources, tributaries, or adjacent segments. TMDLs can be expressed in terms of either mass per time, toxicity, or other appropriate measure. If Best Management Practices (BMPs) or other nonpoint source pollution controls make more stringent load allocations practicable, then wasteload allocations can be made less stringent. Thus, the TMDL process provides for nonpoint source control tradeoffs." 40 C.F.R. § 130.3(i).

- The DAIR and 2014 project description appears to anticipate a straightforward mine closure without any provisions for long-term water treatment, long-term maintenance of the low permeability soil layer to reduce seepage through the waste rock disposal facility, or long-term diversion of drainage away from the waste rock storage areas. We recommend that the Application address long-term requirements to ensure that water quality and aquatic life are protected. We recommend that the anticipated Valued Component interactions with project components or activities described in tables 10, 11, 18 (Aquatic Health) include information on maintaining the components of the project that protect water quality and aquatic life, such as water treatment, and maintaining the recontouring and revegetation of the disturbed area. For example, what would happen if an erosion channel developed through the cap in the waste rock management area?

- The DAIR (Section 1.1) indicates that the Application will include a description of the "estimated costs for decommissioning/closure/management/reclamation." We recommend that the Application disclose the financial arrangements such as bonding or insurance policies to ensure that mine can be successfully closed and reclaimed if the proponent becomes insolvent or if the mine temporary closes, in order to ensure that potential transboundary water quality impacts can be managed into the future.

- The DAIR (Section 1.1.3) lists the information that would be included in the Application if an impoundment is proposed. If an impoundment is proposed, we recommend that a failure modes effects analysis (FMEA) be conducted on the impoundment embankment design to assess potential impacts to water quality.

- The DAIR (Section 1.3) lists the alternatives that will be considered in the Application. We recommend that water treatment alternatives be evaluated due to the unproven effectiveness of the waste rock layering approach.

Monitoring

- The EPA recommends that the proponent establish monitoring stations within the reservoir, including at the international border. This monitoring should be coordinated with other proponents in the Elk Valley, the B.C. Ministry of Environment, and the Montana Department of Environmental Quality.

Aboriginal and Public Consultation

- The EPA recommends adding the Confederated Salish and Kootenai Tribes and the Kootenai Tribe of Idaho to the list of Aboriginal groups that will be discussed in the Aboriginal Consultation section of the Application.

- The Consultation Plan should include the states of Montana and Idaho as well as downstream local communities in the U.S. such as Libby and Eureka, Montana. EPA recommends that the proponent hold future public meetings on the project in the U.S. This will allow U.S. stakeholders the opportunity to review and comment on the proposed activities and their potential impact within the U.S.

Thank you for the opportunity to provide comments on the DAIR. Please feel free to contact Jason Gildea of my staff at (406) 457-5028 or at gildea.jason@epa.gov should you have any questions.

Sincerely,

Darcy O, Connor
Assistant Regional Administrator,
Office of Water Protection

cc: Patty McGrath, EPA Region 10
Fraser Ross, Canadian Environmental Assessment Agency
Tim Davis, Montana Department of Environmental Quality
Rich Janssen, Natural Resources Department, Confederated Salish and Kootenai Tribe
Kevin Greenleaf, Kootenai Tribe of Idaho